

PATENT COOPERATION TREATY

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REC'D 08 MAY 2001

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

14

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| Applicant's or agent's file reference 59138-B-PCT | FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416) | |
| International application No. PCT/US00/12065 | International filing date (day/month/year) 03 MAY 2000 | Priority date (day/month/year) 03 MAY 1999 |
| International Patent Classification (IPC) or national classification and IPC Please See Supplemental Sheet. | | |
| Applicant SYNAPTIC PHARMACEUTICAL CORPORATION | | |

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|---|
| 1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36. |
| 2. This REPORT consists of a total of <u>5</u> sheets. <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority. (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>0</u> sheets. |
| 3. This report contains indications relating to the following items: I <input checked="" type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input checked="" type="checkbox"/> Non-establishment of report with regard to novelty, inventive step or industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application |

| | |
|--|--|
| Date of submission of the demand 01 DECEMBER 2000 | Date of completion of this report 17 APRIL 2001 |
| Name and mailing address of the IPEA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230 | Authorized officer EILEEN B. O'HARA <i>Eileen B. O'Hara</i> Telephone No. (703) 308-0196 |

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/12065

I. Basis of the report

1. With regard to the elements of the international application:*

☒ the international application as originally filed☒ the description:

pages 1-131 _____, as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____

☒ the claims:

pages 132-158 _____, as originally filed
pages NONE _____, as amended (together with any statement) under Article 19
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____

☒ the drawings:

pages 1-35 _____, as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____

☒ the sequence listing part of the description:

pages 1-20 _____, as originally filed
pages NONE _____, filed with the demand
pages NONE _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☒ contained in the international application in printed form.
☒ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☒ The amendments have resulted in the cancellation of:

☒ the description, pages NONE
☒ the claims, Nos. NONE
☒ the drawings, sheets/fig. NONE

5. ☐ This report has been drawn as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/US00/12065

III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been and will not be examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 44-62,75,81,91,99,101-114,120-123,138-142,150-165

because:

- ☐ the said international application, or the said claim Nos. _ relate to the following subject matter which does not require international preliminary examination (*specify*).

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _ are so unclear that no meaningful opinion could be formed (*specify*).

- ☐ the claims, or said claims Nos. _ are so inadequately supported by the description that no meaningful opinion could be formed.

- ☒ no international search report has been established for said claims Nos. (See Attached).

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

- ☐ the written form has not been furnished or does not comply with the standard.
- ☐ the computer readable form has not been furnished or does not comply with the standard.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US00/12065

V. Required statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. statement**

| | | |
|-------------------------------|---|-----|
| Novelty (N) | Claims <u>(Please See supplemental sheet)</u> | YES |
| | Claims <u>(Please See supplemental sheet)</u> | NO |
| Inventive Step (IS) | Claims <u>(Please See supplemental sheet)</u> | YES |
| | Claims <u>(Please See supplemental sheet)</u> | NO |
| Industrial Applicability (IA) | Claims <u>(Please See supplemental sheet)</u> | YES |
| | Claims <u>(Please See supplemental sheet)</u> | NO |

2. citations and explanations (Rule 70.7)

Claims 1-43, 63-74, 76-80, 82-90, 92-98, 100, 115-119, 124-137 and 143-149 meet the criteria set out in PCT Article 33(2)-(4), because the prior art does not teach or fairly suggest the nucleic acids encoding the polypeptide identified as SNORF36 receptor, the SNORF36 receptor, and methods of screening for antagonists or agonists of the receptor. The claimed invention has industrial applicability in that the nucleic acid molecules can be used to screen for related nucleic acid molecules and the encoded protein can be used in methods to screen for compounds that bind to it or to produce antibodies.

----- NEW CITATIONS -----
NONE

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

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Supplemental B x

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: Boxes I - VIII

Sheet 10

CLASSIFICATION:

The International Patent Classification (IPC) and/or the National classification are as listed below:

IPC(7): C07K 14/705; C07H 21/04; C12N 15/63, 1/21; C12P 21/02; G01N 33/53 and US Cl.: 530/350; 536/23.5; 436/7.1, 69.1, 252.3, 254.2, 320.1, 361

III. NON-ESTABLISHMENT OF REPORT:

No international search report has been established for claim numbers 44-62, 75, 81, 91, 99, 101-114, 120-123, 138-142, 150-165.

V. 1. REASONED STATEMENTS:

The report as to Novelty was positive (YES) with respect to claims 1-43, 63-74, 76-80, 82-90, 92-98, 100, 115-119, 124-137, 143-149.

The report as to Novelty was negative (NO) with respect to claims NONE.

The report as to Inventive Step was positive (YES) with respect to claims 1-43, 63-74, 76-80, 82-90, 92-98, 100, 115-119, 124-137, 143-149.

The report as to Inventive Step was negative (NO) with respect to claims NONE.

The report as to Industrial Applicability was positive (YES) with respect to claims 1-43, 63-74, 76-80, 82-90, 92-98, 100, 115-119, 124-137, 143-149.

The report as to Industrial Applicability was negative (NO) with respect to claims NONE.